



CNP-WFAP

Wireless Access Point

User Manual

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Thank you for purchasing **CANYON CNP-WFAP**. We sincerely wish you to enjoy the wireless access point. It provides user an easy and stable high speed internet connection. It is also equipped with built-in NAT technology that acts as a firewall to protect the network from outside intrusions. Ultimately, the device is implemented with an IEEE 802.11b/g access point which is capable of wireless LAN network. To fully utilize the functions and features of **CANYON CNP-WFAP**, please read through the user manual before you get started.






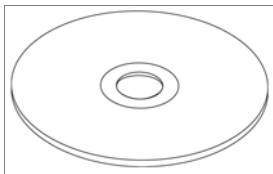
Introduction

Safety Precautions

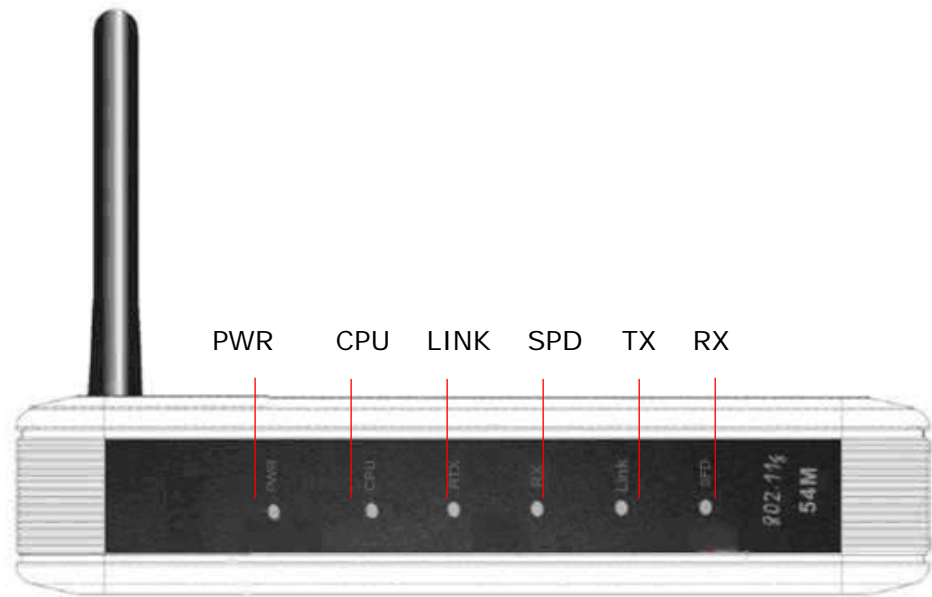
Please observe all safety precautions before using the device. Please follow all procedures outlined in this manual to properly operate the device.

- Do NOT attempt to disassemble or alter any part of the device that is not described in this guide.
- Do NOT place the device in contact with water or any other liquids. The device is NOT designed to be liquid proof of any sort.
- In the event of liquid entry into device interior, immediately disconnect the device from the computer. Continuing use of the device may result in fire or electrical shock. Please consult your product distributor or the closest support center.
- To avoid risk of electrical shock, do not connect or disconnect the device with wet hands.
- Do NOT place the device near a heat source or directly expose it to flame.
- Never place the device in vicinity of equipments generating strong electromagnetic fields. Exposure to strong magnetic fields may cause malfunctions or data corruption and loss.
- All images in the user manual are for user reference only. Actual products might differ slightly than images shown here.

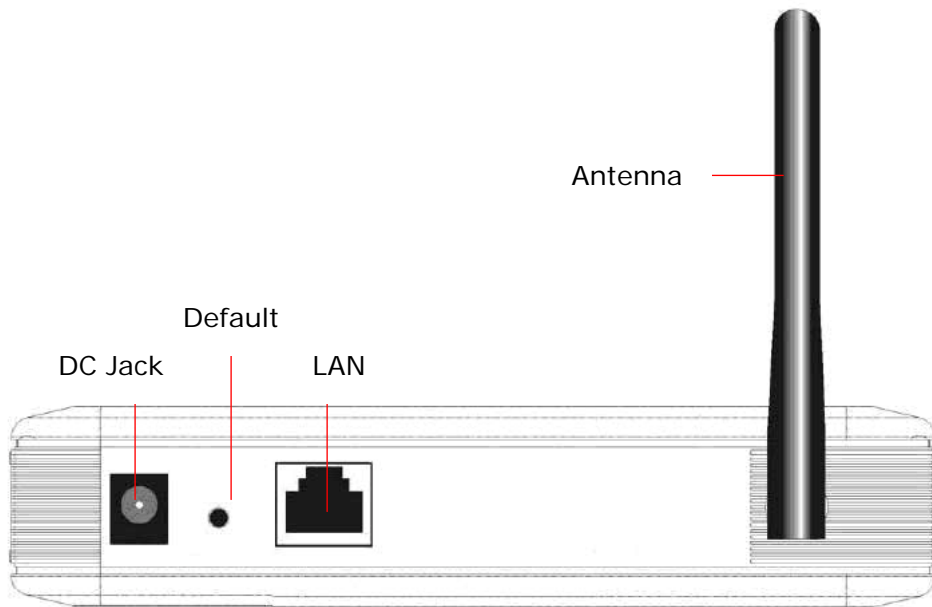
Package Contents

Product Image	Item Name
	CNP-WFAP Main Unit
	Standing Base
	Power Adapter
	Warranty Card
	Quick Guide
	Documentation CD

Hardware Overview



PWR	Power status indicator
CPU	Device status indicator
LINK	LAN connection status indicator
SPD	Transmission activity status indicator
TX	LAN transmission activity status indicator
RX	Wireless transmission activity status indicator



DC Jack	Connects to power adapter
Default	Reset device to factory default settings
LAN	Connects to cable/DSL modem
Antenna	Transmits signals

Getting Started

Connecting to Device

Please follow the steps below to connect the modem and PC(s) with **CANYON CNP-WFAP**:

1. Begin by searching for an appropriate location to setup device. Please keep in mind to keep the device in the center of working area as the signal strength and data transfer rate falls off with distance.
2. It is also recommended to place device at a higher position to ensure minimum obstacle interference.
3. Make sure that all network devices are powered off, including the device itself, PCs, switches, cable or DSL modem, and other peripherals.
4. Connect the modem to WAN port of the device by one CAT 5 Ethernet cable.
5. Connect PC(s) with the LAN ports (PC1/PC2/PC3/PC4) of the device by CAT 5 Ethernet cables. One PC connects to only one port using one cable.
6. Power on the cable or DSL modem.
7. Plug in the power of the device. The Power status indicator at the front panel of device will light up as soon as the power adapter is connected properly.
8. Power on PC(s).

Windows XP Setup

1. Click on Start → Settings → Control Panel.
2. Click on Network and Internet Connections icon.
3. Click on Network Connections
4. Right click on Local Area Connection icon and click on Properties.
5. Select TCP/IP option and click on Properties. The Properties dialog box will be displayed.
6. Check "Obtain an IP address automatically" and "Obtain DNS server address automatically" options.
7. Click Ok to confirm modifications.

Windows Vista Setup

1. Click on Start → Settings → Network Connections.
2. Right click on Local Area Connection icon and click on Properties.
3. Click on Continue in User Account Control dialog box.
4. Select TCP/IPv4 option and click on Properties. The Properties dialog box will be displayed.
5. Check "Obtain an IP address automatically" and "Obtain DNS server address automatically" options.
6. Click Ok to confirm modifications.

Windows 2000 Setup

1. Click on Start → Settings → Control Panel.
2. Double click on Network and Dial-up Connections icon. The Network dialog box will be displayed.
3. Right click on Local Area Connection icon and click on Properties.
4. Select TCP/IP option and click on Properties. The Properties dialog box will be displayed.
5. Check "Obtain an IP address automatically" and "Obtain DNS server address automatically" options.
6. Click Ok to confirm modifications.

Windows 98/ME Setup

1. Click on Start → Settings → Control Panel.
2. Double click on Network icon. The Network dialog box will be displayed.
3. Please make sure that appropriate network card is installed before proceeding. Click on the Configuration label.
4. Select TCP/IP option and click on Properties. The Properties dialog box will be displayed.

NOTE:

Select the TCP/IP item with an arrow "→" pointing to the network card if more than one TCP/IP options is present.

5. Make sure that the option "Obtain IP address automatically" is checked.
6. Make sure that the "WINS Resolution" option is checked under WINS Configuration dialog box.
7. From Gateway dialog box, remove all entries from the Installed gateways

by selecting them and clicking on Remove.

8. From DNS Configuration dialog box, remove all entries from DNS server search order box and Domain suffix search order box by selecting them and clicking on Remove. Click on Disable DNS.
9. Click Ok to confirm modifications.

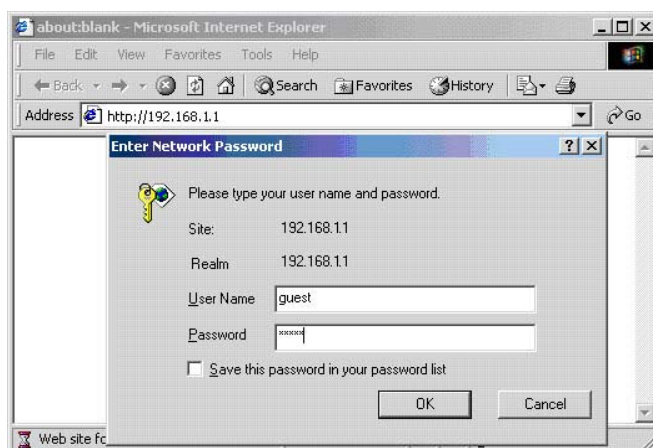
NOTE:

To access the device via a wireless connection, PC must be equipped with 802.11b or 802.11g wireless adapter/PCI card. The configuration should be set as below:

- Operation Mode: Infrastructure
- SSID: Default
- Authentication: Disabled
- Encryption: Off

Device Configuration

Before setting up the device, please make sure that the host PC(s) is set on the IP sub-network accessible by **CANYON CNP-WFAP** device. The default network address of the device is set as 192.168.1.1. Please configure IP address of host PC at 192.168.1.XXX where XXX is a number between 002 and 254. The subnet mask should be 255.255.255.0. Please follow below steps to enter web browser management mode.



1. Open a browser (**Internet Explorer browser only**) and type in "192.168.1.1" at the address bar and press Enter.
2. Type "guest" at the user name text box and "guest" again at the password text box.
3. The home page of web browser management mode will be displayed.
4. Click on 8 different functions on the main router menu on the left. The corresponding information will be displayed at right.
5. Click on Help at any time to bring up help menu.

NOTE:

The factory settings of user name and the password are by default "guest". It is recommended that user change that information to better maintain network security.

Wireless AP Configuration Wizard

1. Start Wireless AP Configuration Wizard

Wireless AP Configuration Wizard

Start Wireless AP Configuration Wizard

Wireless AP Configuration Wizard will help you to setup wireless connection easily.

☐ pop up ☒ don't pop up

Save

Start Exit

- Internet Configuration Wizard will pop up upon successful login.

NOTE:

In order to enter **Wizard** mode, temporarily disable popup window blocking option if necessary or click on **Wizard** to start.

- Select **pop up** to enable automatic Internet Configuration Wizard prompt window. Click on **Save** to save this setting.
- Click on **Start** to continue or Click on **Exit** to exit.

2. Wireless AP Configuration

Wireless AP Configuration Wizard

Wireless AP Configuration

Radio Band	802.11b/g ▼
Radio Mode	AP ▼
SSID	default
Channel	Channel 6 ▼

Prev Next Exit

- Select a **Radio Band** type from the drop down box. (802.11b/g is recommended)

- Select **Radio Mode** from the drop down box. (AP+WDS is recommended)
- Type in **SSID** as desired. (SSID must be identical in all devices connecting to device)
- Select a broadcasting channel from drop down box. (Device is set on channel 6 by default)
- Some of the options might not be displayed while working with different **Radio Modes**.
- Click on **Next** to continue or **Prev** to go back to previous page.
- Click on **Exit** to exit.

3. Installation Completed

Wireless AP Configuration Wizard

Finished
All configurations are applied and saved
Press "exit" button

Exit

- Click on **Exit** to finish Internet Configuration Wizard.

Status

LAN Status

Physical Address	08-10-17-00-4e-43
LAN IP Address	192.168.1.1
Subnet Mask	255.255.255.0

Wireless Status

Wireless	Enabled
Connection	Disconnected
MAC	08-10-17-00-4e-43
Radio Band	802.11b/g
SSID	default
Channel	6
Mode	AP
Security	None

SYSTEM INFO

Edition Info	AP-M14H-V1.1.04EN-OEM,2006.05.12.16:06.
--------------	---

1. This section displays basic router information.
 - **LAN Status:** LAN interface parameters of the device.
 - **Wireless Status:** WLAN interface parameters of the device.
 - **System Info:** Displays device firmware version.

Radio

Basic Setting

Radio Band	802.11b/g ▼
Radio Mode	AP ▼
Booster Mode	<input type="checkbox"/> Enabled this mode can enhance the throughput of data transmission.
After configing basic parameters,Please config Authentication and Encryption mode,to setup Valid and Safe wireless connection.	
SSID	default
Broadcast SSID	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
Channel	Channel 6 ▼
<input type="button" value="Apply"/>	

1. This section assists user to create a network environment that connects wireless PC(s) to a wired LAN. It also allows wireless stations to access network resources and share the broadband Internet connection.

2. Select **Radio Band** and **Radio Mode** from the drop down menu boxes.
3. Check on **Booster Mode** to increase throughput of data transmission. Uncheck to disable.
4. Type in desired **SSID** (network name shared among all points in a wireless network). **SSID** is case sensitive and must not exceed 32 characters.

NOTE:

It is recommended to change default **SSID** to a unique name for better security.

5. Select a channel (14 channels) for wireless communication. Channels 1, 6, and 11 are non-overlapping channels while all others are overlapping channels.
6. Click on **Apply** to confirm modification.
7. Click on **Save** to save modified settings.

Security

Security Configuration

Authentication Type	None
<input type="button" value="Apply"/>	

This section defines all common security settings for wireless networking. Select one of the **Authentication Type** from the drop down menu box.

- **None:**
 1. Any data will be transmitted without encryption and any PC(s) is able to connect to device without authentication. This is the default setting.
 2. Click on **Apply** to confirm modification.

Security Configuration

Authentication Type	WEP
Accessorial Authentication & Encryption	Open System

WEP

KEY Length	<input checked="" type="radio"/> 64 bits <input type="radio"/> 128 bits	
WEP Mode	<input checked="" type="radio"/> HEX <input type="radio"/> ASCII	
Key 1	<input checked="" type="radio"/> A123456789	Key format is 10 Hex-Number, every Hex-Number can be 0-9 and A-F
Key 2	<input type="radio"/> <input type="text"/>	
Key 3	<input type="radio"/> <input type="text"/>	
Key 4	<input type="radio"/> <input type="text"/>	
<input type="button" value="Apply"/>		

- **WEP:**

1. WEP (Wired Equivalent Privacy) utilizes a combination of 64-bit or 128-bit keys to provide access control and encryption security.
2. Select **Authentication & Encryption** type (**Open System**, **Shared Key**, and **Auto Select**) from the drop down menu box.
3. Select **KEY Length** (64 bits/128 bits) and **WEP Mode** (HEX/ASCII) as desired. Settings on PC(s) must match that of the device.
4. Select 1 of 4 keys to type in a string of characters defined in the description box. The key criteria is listed as below:

Key Length	HEX Format	ASCII Format
64 bit	10 hexadecimal digits	5 ASCII characters
128 bit	26 hexadecimal digits	13 ASCII characters

5. Click on **Apply** to confirm modification.

Security Configuration

Authentication Type	WPA Personal ▼
Accessorial Authentication & Encryption	TKIP ▼

Pre-Shared Key

Key Format	Please input 8-63 characters
KEY	*****
Rekey Time (sec)	86400
<input type="button" value="Apply"/>	

- **WPA Personal:**

1. WPA (Wi-Fi Protected Access) is an advanced security standard that utilizes pre-shared key to authenticate wireless stations and encrypt data during communications.
2. Select **Authentication & Encryption** type (**TKIP** and **AES**) from the drop down menu box.
3. Type in Pass Phrase with size ranging from 8 to 63 characters under **KEY** option.
4. Specify time WPA key must be renewed. The default value is 86400.
5. Click on **Apply** to confirm modification.

NOTE:

TKIP (Temporal Key Integrity Protocol) utilizes a stronger encryption algorithm and includes Message Integrity Code while **AES** (Advanced Encryption System) utilizes a symmetric 128 bit block data encryption, the strongest encryption currently available.

Security Configuration

Authentication Type	WPA2 Personal
Accessorial Authentication & Encryption	AES

Pre-Shared Key

Key Format	Please input 8-63 characters
KEY	*****
Rekey Time (sec)	86400
<input type="button" value="Apply"/>	

- **WPA2 Personal**

1. WPA2 is a more advanced version of WPA which only authenticates access and encrypts data transmission with **AES** type.
2. Type in Pass Phrase with size ranging from 8 to 63 characters under **KEY** option.
3. Specify time WPA key must be renewed. The default value is 86400.
4. Click on **Apply** to confirm modification.

Security Configuration

Authentication Type	WPA&WPA2 Personal
---------------------	-------------------

Pre-Shared Key

WPA	<input checked="" type="radio"/> TKIP <input type="radio"/> AES
WPA2	<input checked="" type="radio"/> AES
KEY Mode	Please input 8-63 characters
WPA Pass Phrase	*****
WPA2 Pass Phrase	*****
Rekey Time (sec)	86400
<input type="button" value="Apply"/>	

- **WPA&WPA2 Personal:**

Auto-select WPA or WPA2 detects PC wireless authentication information and adjusts its setting accordingly. The operations are identical to that of WPA and WPA2. Please refer to previous sections for detailed information.

MAC Filter

Wireless Access Control Configuration

<input checked="" type="checkbox"/> Enable Wireless Access Control	<input type="button" value="Apply"/>		
<input type="radio"/> Defined items in MAC list are PERMITTED to connect AP, others are DENIED	<input type="button" value="Apply"/>		
<input checked="" type="radio"/> Defined items in MAC list are DENIED to connect AP, others are PERMITTED			
MAC	<input type="text"/>	<input type="button" value="Add"/>	
Descript	<input type="text"/>		
ID	MAC	Descript	Delete
1	CC-00-AA-BB-FF-12	pc1	<input type="button" value="Delete"/>

1. This section specifies wireless access control based on MAC address of PC(s).
2. Check on **Enable Wireless Access Control** and click on **Apply** to implement access control.
3. Check on appropriate radio button option and click on **Apply** to implement security control type.
4. Type in **MAC** address of PC(s) and optional comments if necessary under **Descript** box. Click on **Add** to edit modified rule.
5. An Access Control Table below displays all PC(s) under access control on the network. Select a rule and click on **Delete** to remove it from table.
6. Click on **Save** to save modified settings.

WDS

Wireless Bridge Configuration

Wireless Bridge MAC	<input type="text"/>	<input type="button" value="Add"/>	
Descript	<input type="text"/>		
Current Wireless Bridge Information			
No	MAC	Descript	Delete
1	00-33-CF-25-A1-00	wds	<input type="button" value="Delete"/>

1. This section creates wireless bridge between 2 or more router device.
2. Type in **MAC** address of other router device(s) and optional comments if necessary under **Descript** box. Click on **Add** to edit modified rule.
3. A Wireless Bridge Information Table below displays all router devices bridged on

the network. Select a router device and click on **Delete** to remove it from table.

- Click on **Save** to save modified settings.

Advanced

Advanced Setting	
Beacon Interval	<input type="text" value="100"/> (20-1000 ms)
RTS Threshold	<input type="text" value="2347"/> (256-2432)
DTIM Interval	<input type="text" value="1"/> (1-255)
Transmit Rate	<input type="text" value="Auto"/>
Preamble Type	<input checked="" type="radio"/> Long <input type="radio"/> Short <input type="radio"/> Auto
802.11g protection	<input checked="" type="radio"/> CTS <input type="radio"/> RTS/CTS <input type="radio"/> Disabled
<input type="button" value="Apply"/>	

- This section adjusts advanced wireless function.
- Type in the **Beacon Interval** between each beacon broadcast. A beacon is a packet broadcasted by the device to assist in network synchronization. The default value is 100.
- Type in **RTS Threshold** value as desired between 256 and 2432. The default value of 2347 should only be modified when encountering inconsistent data flow.
- Type in **DTIM Interval** frequency between each DTIM (Delivery Traffic Indication Message) broadcast. Lower value result in more efficient networking while preventing PC(s) from entering power saving mode. Higher value interferes with wireless transmission yet allowing PC(s) to enter sleep mode thus saving power consumption.
- Select maximum **Transmit Rate** (Transmission rate of data packets) of the device. The default value is **Auto**.
- Select **Preamble Type** (Length of CRC block in the frames during wireless communication). **Short** Preamble is appropriate for heavy traffic wireless network while **Long** Preamble provides better communication reliability.
- Select **802.11g Protection** type between **CTS**, **RTS/CTS**, or disabled.
- Click on **Apply** to confirm modification.
- Click on **Save** to save modified settings.

Client Info

Association Table

No	MAC Address	Status	Band	Rate	Signal Quality	RSSI	Power Save
<div>Refresh</div>							

1. This section displays all PC(s) connected to device via wireless network.
2. Click on **Refresh** to update table.

Site Survey

Current Wireless Network

	SSID	BSSID	Channel	Type	Band	Encryption	Signal
	My	00-e0-4c-81-86-86	11	AP	802.11g	NONE	2
	2	08-10-17-7e-28-ca	11	AP	802.11g	NONE	1
	1	08-10-17-dc-b6-c3	11	AP	802.11g	NONE	0
<div>Refresh Scan Join</div>							

1. This section displays and joins all active wireless stations within device transmission range to repeat the wireless station signal.
2. Click on **Refresh** to received latest updates.
3. Select a desired wireless connection and then click on **Join**.
4. Click on **Save** to save modified settings.

IP Config

LAN Setup

☐ Dynamic IP User

☒ Static IP User

IP Address	<input type="text" value="192.168.1.1"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="0.0.0.0"/>
<div>Apply</div>	

1. This section adjusts device default IP address type and assigns its IP address.
2. Select a desired IP address type.
3. Type in **IP Address**, **Subnet Mask**, **Gateway**.
4. Click on **Apply** to confirm modification.
5. Click on **Save** to save modified settings.

DHCP Server

DHCP Setup

DHCP Setup	
<input type="checkbox"/> DHCP Server on	
IP Pool	192.168.1. <input type="text" value="2"/> 192.168.1. <input type="text" value="102"/>
Lease Time	<input type="text" value="0"/> minutes (0 means 1 day)
Gateway	<input type="text" value="192.168.1.1"/>
Static DNS1	<input type="text"/>
Static DNS2	<input type="text"/>
<input type="button" value="Apply"/>	

1. This section assists user to designate a specific IP address to the device and other IP addresses to PC(s) or network machines connected to the device.
2. The 1st tab configures PC(s) connected to device and other settings. Enable/disable **DHCP Server** function by clicking on the option. Enabling DHCP Server function allows the device to assign host PC(s) IP address. DHCP IP address range can be allocated by entering range of IP addresses under **DHCP IP Pool** option.
3. Type in **Lease Time** that designates IP address refreshing frequency.
4. Type in **Gateway** address of device. This is the default gateway IP address of LAN client(s)/host PC(s).
5. Type in **Static DNS1** address and **Static DNS2** address if required.
6. Click on **Apply** to confirm modification.
7. Click on **Save** to save modified settings.

NOTE:

User must manually assign IP address of host PC(s) if **DHCP Server on** option is disabled.

IP Reserve

IP Address Reservation				
Descript	<input type="text" value="MAC1"/>			
MAC Address	<input type="text" value="aa-cc-bb-dd-ee-aa"/>			
IP Address	192.168.1. <input type="text" value="34"/>			
<input type="button" value="Add"/>				
ID	Descript	IP Address	MAC Address	Delete
1	MAC1	192.168.1.34	aa-cc-bb-dd-ee-aa	<input type="button" value="delete"/>

1. Reserve a specific **DHCP IP Address** to a PC or network device. Type in Description if necessary.
2. Type in the client's **MAC address** and desired **IP address**. Click **Add** to confirm.
3. A Designated IP Table below displays all DHCP IP address reserved. Select an IP address and click on **Delete** to remove it from table.
4. Click on **Apply** to confirm modification.
5. Click on **Save** to save modified settings.

DHCP Info

DHCP Client Info

ID	IP Address	MAC Address	Status
1	192.168.1.34	aa-cc-bb-dd-ee-aa	Static

1. The 2nd tab displays all PC(s) connected to the device.

MISC

Login ID & Password Setup

Login ID & Password Setup

Login name is "guest"		Apply
New Password	•••••	
Confirm New Password	•••••	

1. The default Login ID is "guest" and the default password is also "guest".
2. To change password, type in new password and type in the same new password again to confirm.
3. Click **Apply** to confirm modifications.
4. Click on **Save** to save modified settings.

NOTE:

To reset device to factory default setting, press **RESET** button on the device front panel. The Login ID and password will be reset to "guest".

Restore Default/Restart System

Restore Default / Restart System

Restore Default	Restart System
-----------------	----------------

1. Click on **Restore Default** to restore all device settings to factory setting.
2. Click on **Restart System** to reboot the device.

Firmware Upgrade

Firmware Upgrade

Current Version:	AP-M14H-V1.1.02EN-OEM,2006.04.18.19:10.		
New Firmware File:	<input type="text"/>	<input type="button" value="Browse..."/>	<input type="button" value="Apply"/>

1. This section displays current device firmware version.
2. Click on **Browse** to locate firmware file on host PC.
3. Click **Apply** to confirm modifications.

NOTE:

Press briefly on **Default** button to reset the device. Press and hold the button for at least 5 seconds to restore device to factory default settings.

Troubleshooting

Please refer to the following procedures if **CNP-WFAP** does not function as it should be. Be advised that the following instructions are only intended for simply troubleshooting purpose. Please contact your local authorized shops for further troubleshooting and technical support.

- **Do not remember password.**
 1. Press and hold the reset button on the front panel of device for more than 5 seconds.
 2. Unplug power adapter and wait for 5 seconds before plugging it in again.
- **Can not access web based configuration utility from PC.**
 1. Please check signal stability from cable/DSL modem. There should be a signal indicator on the modem displaying its connection status. Contact ISP if the signal is bad.
 2. Please check status indicators on the front panel of device. When working properly, the SYS indicator should be solid and the WAN indicator should be blinking. The LAN indicator(s) should also be blinking with corresponding PC(s) connect to the device.
 3. Please verify that the network cables are working properly.
 4. Please check whether PC resides on the same subnet with the device.
 5. Please also check whether PC has been assigned an IP address from an DHCP server. Renew IP address if necessary.
 6. Please disable proxy server function on the browser.

Appendix

Technical Specifications

Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.11g, IEEE802.11b
Modulation Technology	Orthogonal Frequency Division Multiplexing (OFDM)
Management Interface	Web Based
Wireless Frequency Range	2.4GHz ~ 2.462GHz
Wireless Operating Range	Up to 100M indoor Up to 400M outdoor
RF Power Output	15 ± 2dBm
Wireless Security	WPA/WPA2, WEP 64/128bit, Wireless MAC Filtering
LED Indicators	SYS, WLAN, LAN Link/Activity, WAN
Temperature	Operating: 0° to 40° C Storage: -20° to 70° C
Humidity	Operating: 10% to 85 % non-condensing Storage: 5% to 90 % non-condensing
Dimensions	135mm(L) X 99mm(W) X 29mm(H)
Weight	200g
Power	DC 9V, 700mA